SOUTHEAST ALASKA AND YAKUTAT AREA GROUNDFISH INVESTIGATIONS

Final Report for the Period July 1, 1990 To June 30, 1991

By

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ABSTRACT

The Region I Groundfish Project manages all groundfish resources in state waters within the Southeast and Yakutat areas and also manages demersal shelf rockfish and lingcod in the adjacent Exclusive Economic Zone (EEZ). The project also cooperates with the National Marine Fisheries Service (NMFS) to regulate groundfish fisheries in the offshore waters of the eastern Gulf of Alaska.

The Project is divided into three primary functions (programs) and has staff personnel stationed in as many as seven ports during peak fisheries and/or research activities. Information collected by the Groundfish Project staff is used to make management decisions regarding regional groundfish fisheries and to modify sampling designs to obtain better data for future management.

This report describes the activities conducted by the Region I Groundfish Project between July 1, 1990 and June 30, 1991.

INTRODUCTION

The Region I Groundfish Project has research and management responsibility for all groundfish resources in the territorial waters of the state (0 to 3 miles) in the Southeast and Yakutat areas of the Gulf of Alaska. The region extends from the U.S./Canada border in Dixon Entrance to 147° W. Longitude (Figure 1). In addition, the project has primary management responsibility for demersal shelf rockfish and lingcod in the adjacent Exclusive Economic Zone (EEZ) and cooperates with the National Marine Fisheries Service (NMFS) to manage all groundfish fisheries in the offshore waters of the eastern Gulf of Alaska. Principal species of concern include, sablefish, demersal shelf rockfish, other rockfish, lingcod, Pacific cod, and starry flounder.

The region is divided into seven areas for groundfish management (Figure 1). Two are in the Yakutat area and five are in Southeast Alaska (Figure 2). All groundfish fisheries in the two Yakutat management areas are managed in cooperation with NMFS. In the three Southeast outside areas the state has principal management responsibility for the demersal shelf rockfish fisheries, exclusive management authority for the lingcod fisheries, and cooperates with NMFS for management of sablefish and other groundfish fisheries. The two Southeast inside management areas include only territorial waters and all groundfish fisheries in these two areas are managed exclusively by the state.

During the reporting period the Groundfish Project was divided into three primary programs to monitor the eastern Gulf groundfish fisheries and to collect the biological data and other information needed for management. These are:

1. Fisheries program management
2. Port sampling
3. Resource assessment

The primary functions of each of the programs, as well as specific activities conducted during the reporting period, are presented in this report.

Groundfish staff personnel are stationed in up to seven ports during peak fishery periods or when research activities require additional support personnel. Responsibilities of project personnel overlap considerably throughout the year. For example, port samplers are also responsible for collecting, editing, and entering fish tickets from both state and federally managed fisheries; the biologist responsible

for setting up our resource assessment surveys also collect biological data, collect and enter fish tickets, conduct port samples and interviews, and summarize fisheries and survey data; the Project Assistant in Sitka and the Project Leader both assume numerous responsibilities which transcend the specific program definitions. As a result, there is often no clear distinction between activities specifically funded by Federal Aid money and activities funded from other sources. Therefore, it is impractical, if not impossible, to report only those programs funded by the Federal Aid contract exclusive of other activities performed by the Groundfish Project.

Project funding is received from several sources with the base budget made up primarily of Federal Aid matching funds. Other funding sources include the state general fund, test fish funding for stock assessment work, a state-wide data collection cooperative agreement with NMFS to collect and enter harvest information from fisheries in the EEZ, funding from the North Pacific Fisheries Management Council (NPFMC) to offset the costs associated with the project leader's participation on the Gulf of Alaska Groundfish Plan Team, PacFIN contracts to conduct supplemental port sampling and groundfish aging work, and an annual travel grant from the Pacific States Marine Fisheries Commission (PSMFC) to offset the cost of the project leader's participation on the Technical Subcommittee of the Canada/US Groundfish Committee (TSC).

Detailed catch and effort information from the Regional groundfish fisheries is compiled at the end of each calendar year and is included in the annual Report to the Board of Fisheries. The 1990 Board Report (Bracken, et. al. 1991), should be referenced for catch and effort information and specific regulatory actions taken as a result of funding provided by this contract.

This report includes a review of the Groundfish Project activities from July 1, 1990 through June 30, 1991. The report concentrates on activities funded through the Federal Aid matching fund contract and serves as the annual progress report required as a result of that funding.

PROJECT PERSONNEL

A staff of nine was funded by the groundfish project during the contract period. Two positions, the Project Leader in Petersburg, and the Project Assistant in Sitka, are full-time personnel. All other project personnel are either seasonal employees or are only partially

funded by the Groundfish Project. An organizational chart which includes groundfish staff, their titles, and duty stations is presented as Figure 3. Table 1 displays the distribution of seasonal personnel by port and function during the contract period.

REGION I GROUNDFISH PROGRAMS

This section of the report provides an overview of the specific programs undertaken by the Groundfish Project during the contract period. All groundfish programs and all research activities conducted by the Groundfish Project have direct management application.

Fishery Program Management

The Fisheries Program Management budget increment is used primarily to fund the standard operational costs of the Groundfish Project and for regulation of the state-managed groundfish fisheries. Permanent salaries and fixed operational costs are included under this program. Regulatory action such as attending local Advisory Committee meetings and the annual Board of Fisheries Meeting, and issuance of Emergency Orders and circulation of News Releases are also included.

In-season management was required during the reporting period in the flatfish trawl fishery and in the rockfish and sablefish longline fisheries. Management action included:

1. Closure of one area to trawling for conservation reasons when the seasonal harvest objectives were reached,

2. Setting open fishing periods and harvest objectives for demersal shelf rockfish fisheries in all five Southeast management areas,

3. Setting open fishing periods and harvest objectives for the NSEI and SSEI area sablefish fisheries, and

4. Closing offshore fisheries consistent with federal regulations when Total Allowable Catch (TAC) limits or Prohibited Species Catch (PSC) limits were reached.

The Board of Fisheries meets every other year to consider Southeast Alaska groundfish regulatory changes. At meetings conducted in Juneau during January and February, 1991, the Board considered 20 individual

proposals for changes to the Southeast Alaska groundfish regulations. Briefing documents were prepared by our staff on each proposal and three staff members attended the meetings to present information on staff-generated proposals and to discuss the merits of public proposals.

Detailed information on catch and effort and specific regulatory action taken during 1990 is included in the 1990 Report to the Board of Fisheries (Bracken et. al. 1991). Board briefing documents, news releases and Emergency Orders are on file at ADF&G and Department of Public Safety offices throughout the region.

As a member of the Gulf of Alaska Groundfish Plan Team, the Project Leader also assisted in a review of proposals for regulatory changes to the groundfish fisheries in Federal waters of the Gulf of Alaska. Of special interest was the state's involvement in offshore rockfish and sablefish management.

Port Sampling

Port samplers were stationed at the major ports of landing during peak groundfish fishing periods. Specific duties depended to a large extent on the fishery being monitored. During the peak periods of the rockfish fishery samplers were stationed in Sitka, Ketchikan, and Craig, which are the major rockfish ports in the region. Port samplers were stationed in Petersburg, Sitka, Ketchikan, Craig, and Yakutat, at different times of the year to monitor the sablefish fisheries. The port sampler in Ketchikan also sampled landings of lingcod, Pacific cod, and black hagfish for biological data. Lingcod were routinely sampled in Sitka, and Pacific cod were sampled for length frequency in Petersburg. Biological data was entered on micro computers for analysis.

The port sampling program included three primary elements: biological sampling, logbook collection and dissemination, and skipper interviews. Port samplers also collected and edited fish tickets. Examples of logbook, interview, and biological sampling forms used in this program are included in Appendix A.

The program emphasis varies by fishery. During the federally-managed offshore sablefish fishery the samplers' primary responsibility was to collect and edit fish tickets, verify catch information, and to collect tags. During the state-managed sablefish fisheries, port samplers stationed in Sitka, Petersburg, and Ketchikan also conducted skipper interviews. During the rockfish fisheries more emphasis was

placed on collection of species composition for the entire catch and other biological information, including AWL data for the predominant species.

All individual sampling, tag recovery, interview and logbook records are confidential and are handled and stored accordingly. State statutes require that even summarized information cannot be released unless more than three vessels have participated in a fishery during a given time/area strata. Published information is usually provided only by broad management area, and even then, information may not be released if it appears that doing so may influence the future distribution of the fleet. Interview and logbook information is currently used to assist in making in-season management decisions and for setting future harvest objectives.

Biological Samples

Biological samples of the landed catch were conducted in Sitka, Ketchikan, Craig, and Petersburg. Samples taken during the year consisted of length, weight, sex, and maturity data, and collection of age structures (otoliths), although not all of these data were collected for each landing or for each fish sampled within a landing. The number of biological samples of each type by species in each port are shown in Table 2. The actual numbers of groundfish specimens sampled in each port are presented in Table 3.

Rockfish made up 77% of all fish sampled, followed by lingcod with 17% of the sample. Yelloweye rockfish (*Sebastes ruberrimus*) and quillback rockfish (*S. maliger*) dominated the rockfish samples, with 61% and 19% of the total rockfish numbers sampled, respectively (Table 3.). Samples conducted by port samplers during this period were also used to determine reproductive timing of nearshore rockfish and to determine the sex ratio of the landed catch.

The lingcod landings were sampled to provide baseline length frequency information and to determine spawn timing. Other species were sampled to determine species composition, and length frequency by species, and to obtain other biological information such as sex ratio and maturity.

Tag Recovery

Samplers of both state and federal fisheries collected sablefish tags as part of their routine duties. ADF&G tags were processed to determine movement and time at large. Recovery information was entered on computer and information of release and recovery was sent

to the individuals who returned the tags. All tags collected which were released by other agencies were returned to the originating agencies.

The numbers of sablefish and halibut tags collected in each port are shown in Table 6. A total of 599 sablefish tags and 10 halibut tags released by five agencies and eight separate projects, including ADF&G, were collected by ADF&G port samplers and biologists during the year. This is the only comprehensive effort to gather sablefish tagging information from fisheries in Alaska. All other agencies rely entirely upon voluntary return of tags and all employ some form of reward program. The information from these recoveries contributes greatly to the knowledge base on sablefish and halibut movements coast wide.

Interviews

This program is conducted by port samplers who are trained to collect specific catch and effort information from operators of groundfish vessels. Interviews provide summary information from the fisheries in much greater detail than is available from the fish tickets. Information collected includes specific area(s) fished, duration of the trip, total amount and type of gear fished, average depth, and the total number, or an estimate, of pounds of fish caught by area during the trip.

Interviews are conducted primarily with participants in the state-managed rockfish and sablefish longline fisheries. The program is voluntary, but most vessel operators cooperate when asked. The information collected is entered on micro computers in Sitka and Petersburg. During the reporting period all rockfish interviews were entered in Sitka, while all sablefish interviews were entered in Petersburg. Analysis of the data is on-going.

Interviews were conducted with skippers of vessels that made a total of 266 rockfish, 87 sablefish, 30 lingcod, 2 Pacific cod, and 1 hagfish landings at three ports during the reporting period. Distribution of interview coverage by fishery and port is shown in Table 5.

Logbooks

A regulation passed by the Board of Fisheries in 1989 requires logbooks for all operators in the directed demersal shelf rockfish

fishery. Mandatory logbooks have also been required in the groundfish trawl fisheries for a number of years.

The logbooks provide detailed, set-specific information including depth fished, amount of gear fished, a detailed description of the gear, and number of fish or an estimate of pounds of fish caught by species or species group in each set. During the past year a micro-computer program to enter and retrieve detailed logbook data was developed for the rockfish logbook program, and data entry began mid-year.

Resource Assessment

Four resource assessment surveys were completed during the reporting period. Two were conducted exclusively by the state and the other two were conducted in cooperation with the National Undersea Research Program (NURP). Cruise summaries are available, on request, for all of the surveys. Commercially valuable fish, with the exception of halibut, were retained from the two state surveys and sold to help off-set charter costs. The surveys are listed in chronological order below.

Offshore Rockfish Submersible Stock Assessment Survey, 1990

The demersal shelf rockfish stock assessment survey was conducted during August 1990 in cooperation with NURP personnel using a manned submersible as a primary assessment vehicle. Three ADF&G staff participated.

The objective of the survey was to conduct a series of line transects near Sitka (a heavily exploited area) and the Fairweather Grounds (a relatively lightly exploited offshore area) to determine the relative density of commercial rockfish species per unit of habitat. A line transect method was used employing ADF&G personnel as observers. All transects were video and audio taped for further analysis.

NSEI Area Sablefish Survey

The NSEI area sablefish survey was conducted between August 26 and September 10, 1990. This was the third year of a five-year study to assess sablefish (*Anoplopoma fimbria*) populations in the NSEI area. A chartered fishing vessel was used and snap-on longline gear was deployed. The sample sites were selected prior to fishing using a

stratified random sampling technique. A total of 40 stations were sampled with 500 hooks per set for a total of 20,000 hooks. During the survey 2,300 sablefish were captured. Preliminary results indicated a slight decline in catch-per-hook compared to the previous year. A sample of roughly 10% (222 fish) were examined for biological information including length, weight, sex, and maturity. Otolith pairs were removed from all sampled fish and sent to our laboratory in Kodiak for age determination.

SSEI Area Sablefish Survey

The 1991 survey was conducted between May 11 and May 26. This survey was the fourth of a five-year study conducted to assess sablefish (*Anoplopoma fimbria*) populations in the SSEI area. It was patterned after our previous sablefish surveys using a chartered fishing vessel and snap-on longline gear.

During the 1991 survey 43 survey sets of 500 hooks each were made and a total of 21,500 of hooks were deployed. This resulted in a catch of 2,065 sablefish, of which 161 sablefish were utilized for biological samples.

Sablefish catch rates were slightly higher in 1991 than in the 1990 and 1989 surveys. Much of the increase was due to young fish recruited into the fishery for the first time.

Offshore Rockfish Submersible Stock Assessment Survey, 1991

A second offshore rockfish survey was conducted in late May and early June, 1991, using the same manned submersible and line transect method employed during the 1990 survey. Rough weather prevented the vessel from replicating the Fairweather transects, so all effort was conducted in the CSEO area in the vicinity of Sitka.

Preliminary results of this work were reported at the annual meeting of the American Fisheries Society (O'Connell and Carlile 1991).

Other Programs

Numerous other activities were conducted by the groundfish project between July 1, 1990 and June 30, 1991. The following section briefly outlines some of those activities.

NMFS Fisheries Monitoring Cooperative Agreement

The funding contract with NMFS to collect catch information from the EEZ fisheries was renewed for the fourth time during the 1990-91 fiscal year. Funding from that contract was used to station a biologist in Sitka, and technicians in Petersburg, and Ketchikan for four to six months each, and was also used to place a technician in Yakutat for one month during the offshore sablefish fishery.

In addition to collecting and editing fish tickets, the technicians funded under this contract monitored the off-shore sablefish fisheries, conducted interviews for state-managed fisheries, and sampled the demersal shelf rockfish and lingcod landings during the peak seasons for those species. They also collected sablefish tags from fishermen during the sablefish fisheries.

North Pacific Fisheries Management Council (NPFMC) Plan Team

Within the period between September and December 1990 the Project Leader actively participated with the NPFMC Groundfish Plan Team. During that period the Plan Team examined stock status reports and compiled a stock assessment and fisheries evaluation (SAFE) document which recommended biologically acceptable harvest levels for all Gulf of Alaska groundfish stocks. During this process, the Project Leader co-authored and presented a demersal shelf rockfish status of stocks report for the Eastern Gulf of Alaska, and compiled the demersal shelf rockfish summary section of the annual SAFE report.

Canada/U.S. Groundfish Committee Technical Subcommittee

The 1991 annual meeting of the Technical Sub-committee (TSC) of the Canada\U.S. Groundfish Committee was held in Newport, Oregon during June. The Project Leader compiled a summary report on 1990 Alaska groundfish fisheries and research programs and presented the report at this meeting. The Project Leader was appointed secretary for the 1990 meeting held in Sitka the previous June. The official minutes of the 1990 meeting were compiled during the year (Bracken 1991b) and presented at the 1991 meeting.

Groundfish Age Readers

Groundfish Project funding was used to support a groundfish age reader in Kodiak for three months during the reporting period. Most of the emphasis was placed on reading rockfish age structures (otoliths)

collected during rockfish port sampling and reading sablefish otoliths collected during the two sablefish surveys. The results of this work are still being analyzed and will be reported in detail in later reports.

We also received supplemental funding from the Pacific Fisheries Information Network (PacFIN) to establish an age reading laboratory in Southeast Alaska. An age reader was hired in January and equipment was ordered to set up the lab. Most of the work conducted during 1991 involved organizing the facility, reviewing literature, and training. The age reader traveled to Seattle, WA, Nanaimo, B.C., and Kodiak, AK to receive training on commercial Alaskan groundfish species. Production reading is expected from the Southeast lab later in 1991 or early 1992.

REPORTS PREPARED DURING THE CONTRACT PERIOD

Bracken, B. E. 1990. Southeast Alaska and Yakutat area groundfish investigations, final report for the period 1 July, 1989 to June 30, 1990. AK. Dept. of Fish and Game Regional Info. Report. IJ90-17. 25p.

Bracken, B. E. 1991a. Alaska groundfish fisheries and associated investigations in 1990, prepared for the thirty-second annual meeting of the Technical Sub-committee of the Canada-United States Groundfish Committee. AK. Dept. of Fish and Game Regional Info. Report. In press. 14p.

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Bracken, B. E., V. M. O'Connell, and D. A. Gordon. 1991. Report to the Board of Fisheries, 1990 Southeast-Yakutat groundfish fishery. *In* Southeast Alaska-Yakutat Region finfish report to the Board of Fisheries. AK. Dept Game Regional Info. Report. IJ91-01, pp 6.1-6.39.

O'Connell, V. M. and B. E. Bracken. 1990. Demersal shelf rockfish. *In* Stock assessment and fishery evaluation report for the 1991 Gulf of Alaska groundfish fishery. Prepared by the Gulf of Alaska Plan Team, North Pacific Fisheries Management Council, P.O. Box 103136, Anchorage, AK 99510, pp 137-146.

O'Connell, V. M. and D. W. Carlile. 1990. Definition of the relationship between demersal shelf rockfish abundance and habitat complexity based on in-situ observations from a submersible in the Eastern Gulf of Alaska. Progress Report submitted to the West Coast National Undersea Research Center.

O'Connell, V. M. and D. W. Carlile. 1991. Relationships between rockfish (*Sebastes sp.*) abundance and habitat complexity. Presented at the annual meeting of the American Fisheries Society, San Antonio, TX, Sept., 1991.

O'Connell, V. M. and J. T. Fujioka. 1991. Demersal shelf Rockfishes (Gulf of Alaska). *In* Regional Report on the status of Living Marine Resources. NOAA Tech. RPT. In prep. for publication.

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Bracken, B. E., V. M. O'Connell, and D. A. Gordon. 1991. Report to the Board of Fisheries, 1990 Southeast-Yakutat groundfish fishery. *In* Southeast Alaska-Yakutat Region finfish report to the Board of Fisheries. AK. Dept Game Regional Info. Report. IJ91-01, pp 6.1-6.39.

O'Connell, V. M. and D. W. Carlile. 1991. Relationships between rockfish (*Sebastes sp.*) abundance and habitat complexity. Presented at the annual meeting of the American Fisheries Society, San Antonio, TX, Sept., 1991.

Table 1. Distribution of seasonal personnel funded by the Region I Groundfish Project from July 1, 1990 through June 30, 1991.

	Sitka	Petersburg	Ketchikan	Yakutat	Kodiak	Juneau	Craig
July	B						
Aug/	B						
Sept	B	P	P				
Oct	B	P	P				
Nov	B	P	P				
Dec	B	P	P				
Jan	B	P	P		A		
Feb	B	P	P				
Mar	B	P	P			A	
Apr	B	P	P			A	P
May	B	P	P	P		A	P
Jun	B	P	P				

Table 2. Distribution of groundfish port samples collected by fishery and port in the Southeast area from July 1, 1990 through June 30, 1991.

	Petersburg	Sitka	Ketchikan	Craig
Rockfish landings		53	12	20
Lingcod landings		16		
Flatfish landings				
Hagfish landings			1	
Pacific cod landings	1		1	
Rockfish otoliths[1]		650	650	271

[1] Rockfish otoliths are taken in pairs. The total includes 946 pairs of yelloweye, 235 pairs of quillback and 50 pairs of black rockfish otoliths.

Table 3. Number of individual groundfish measured by ADF&G port samplers in Southeast Alaska by species and port from July 1, 1990 through June 30, 1991.

SPECIES	SITKA	PETERSBURG	KETCHIKAN	CRAIG	TOTAL
Hagfish			100		100
Idiots	15				15
Lingcod	1417		41	122	1580
Pacific cod	127	103	113	78	421
Pollock			1		1
Rockfish					
black	201		17	43	261
canary	26		4	18	48
china	117			7	124
copper	2			3	5
dusky	169			1	170
greenstripe	1				1
quillback	774		256	709	1739
redbanded	37		3		40
redstripe	4				4
rosethorn	125		2	4	131
rougheye	50		2		52
sharpchin	7				7
shortraker	1				1
silvergrey	69		23	22	114
tiger	32		4	4	40
yelloweye	2844		600	905	4349
yellowtail	13				13
Total Rockfish	4472	0	950	1716	7138
Total all species	6031	103	1205	1916	9255

Table 4. Sablefish and halibut tags collected by ADF&G personnel in Southeast Alaska ports from July 1, 1990 to June 30, 1991.

TAGGING	PORT WHERE RETURNED					
AGENCY	PETERSBURG	SITKA	KETCHIKAN	YAKUTAT	CRAIG	TOTAL
ADF&G	113	10	14			137
ADF&G/NMFS COOP	134	26	24	1		185
NMFS SEATTLE	37	14	18	22	3	94
NMFS AUKE BAY	43	22	20	7	1	93
NMFS GROWTH	7	5	4	1		17
JAPAN FSRC	21	4	4	14		43
CANADA DFO	9	3	12	6		30
IPHC HALIBUT	5	3	2			10
TOTAL	369	87	98	51	4	609

Table 5. Distribution of groundfish skipper interviews collected by fishery and port in the Southeast area from July 1, 1990 through June 30, 1991.

FISHERY	PORT				
	PETERSBURG	SITKA	KETCHIKAN	CRAIG	TOTAL
SSEI SABLEFISH	12	2	9		23
NSEI SABLEFISH	23	28	13		64
ROCKFISH		77	134	55	266
FLATFISH					0
LINGCOD		30			30
PACIFIC COD	1		2		3
HAGFISH			1		1
TOTAL	36	137	159	55	387

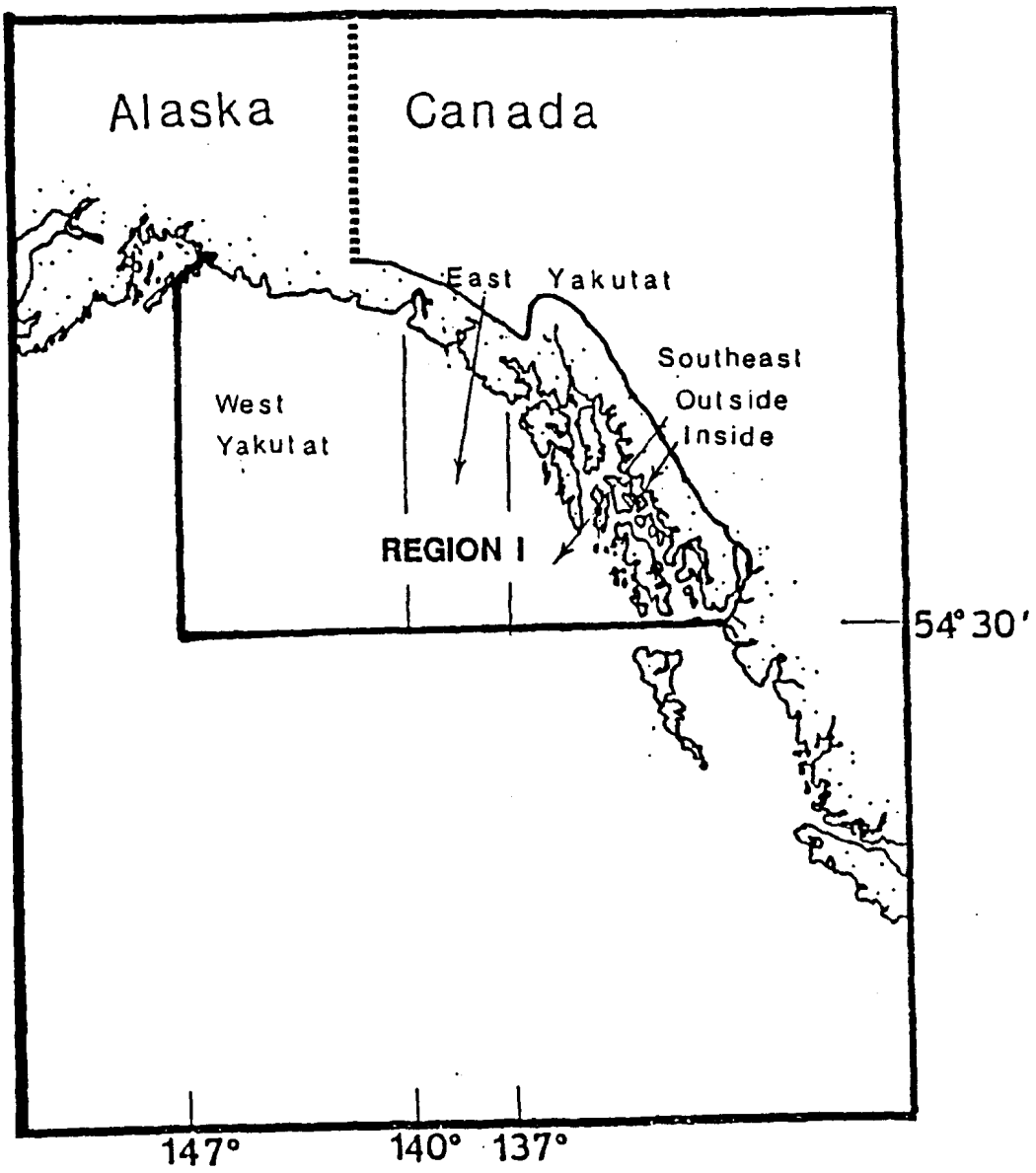

Figure 1. Alaska Department of Fish and Game Region I boundaries and groundfish management areas in the Eastern Gulf of Alaska.

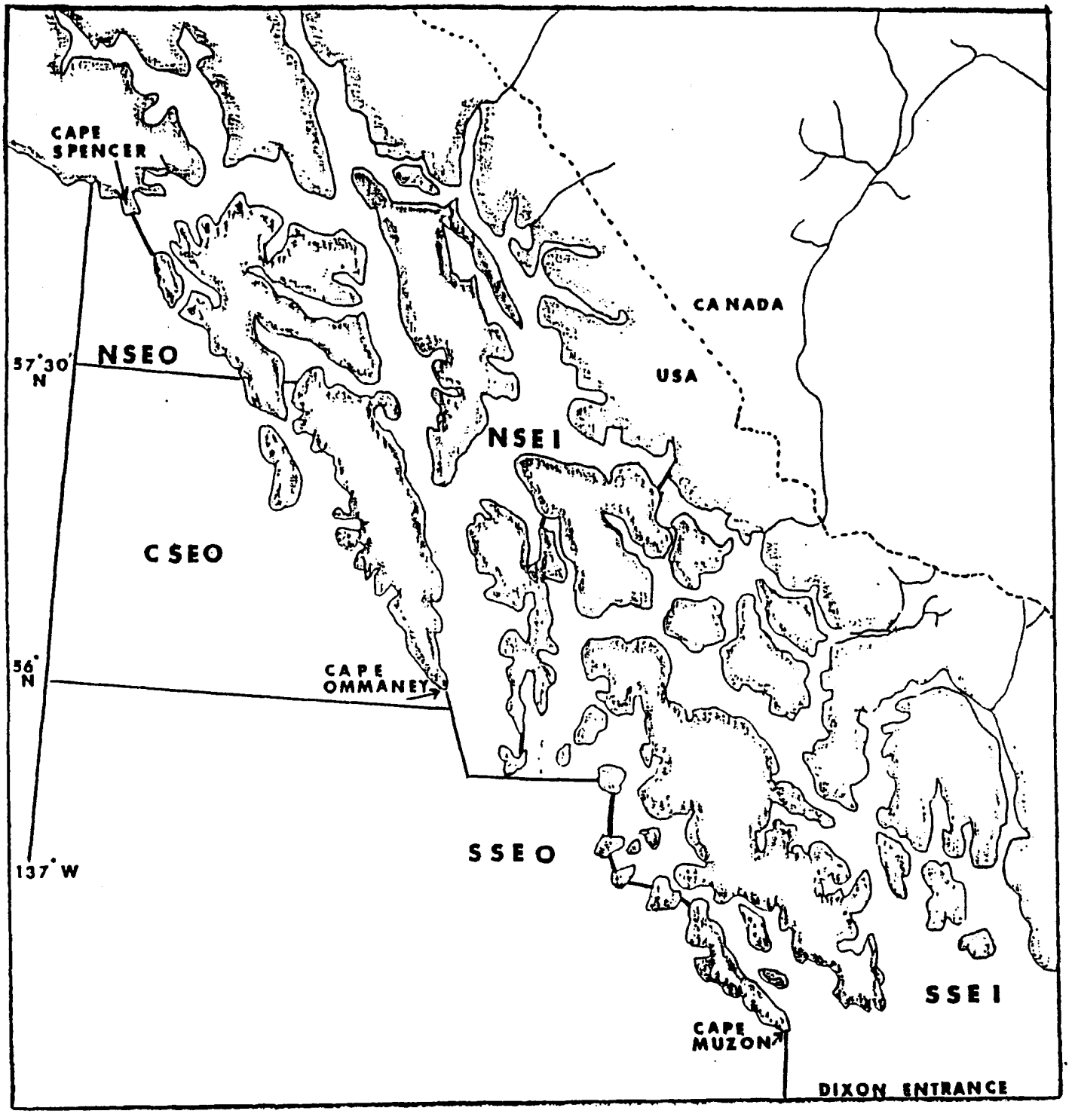

Figure 2. The Southeast Alaska coastline showing Alaska Department of Fish and Game groundfish management areas.

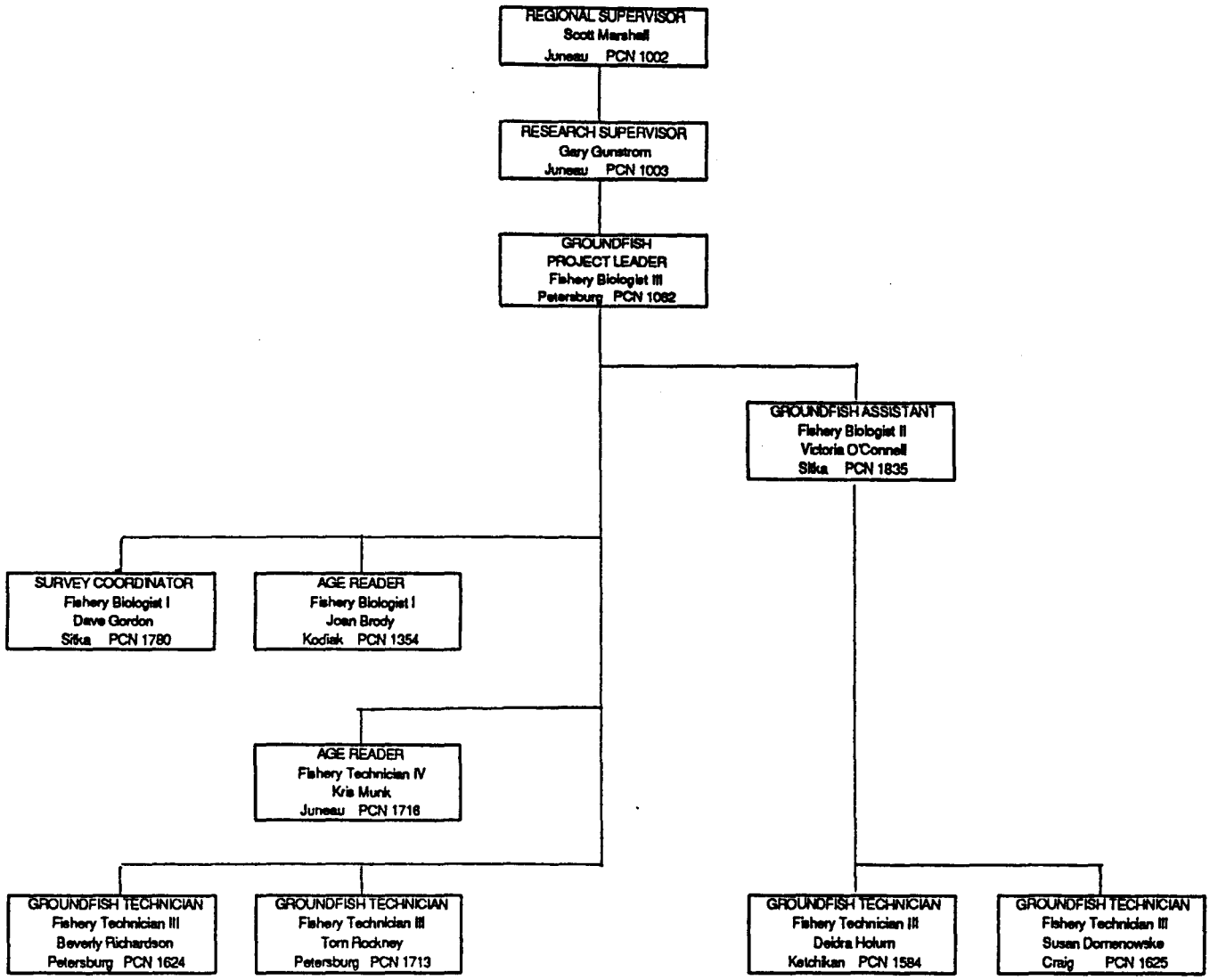

Figure 3. Region I Groundfish Project organizational chart, FY-91.

APPENDIX A: Longline interview forms and longline and trawl logbook forms.

SABLEFISH INTERVIEW FORM

YEAR_____ FISHERY_____

DATE OF LANDING_____

VESSEL_____ ADF&G #_____ DATE OF INTERVIEW_____

PERMIT HOLDER_____ PROCESSOR_____ PORT OF LANDING_____

SKIPPER_____ DAYS/HRS FISHED_____ LOC OF INTERVIEW_____

PERSON INTERVIEWED_____

GEAR LL/POTS SNAPON OR FIXED TYPE OF SYSTEM_____

HOOK TYPE CIRCLE J TARA MIXED HOOK SPACING_____IN SKATE LENGTH_____FMS

BAIT: HERRING SQUID OCTUPUS OTHER_____ FRESH FROZEN SALTED

CONVENTIONAL	SNAP-ON	POTS
# HOOKS/SKATE_____	# HOOKS/SET_____	# POTS/SET_____
# SKATES SET _____	# SETS/TRIP SET_____	# POTS/TRIP SET____
# SKATES RETRIEVED____	# SETS/TRIP RTRVD___	# SETS/TRIP RTRVD__

TOTAL # HOOKS(POTS) SET [ ] TOTAL # HOOKS(POTS) RETRIEVED [ ]

LOST GEAR Y/N NO OF HOOKS LOST_____WHY_____

SPECIFIC AREA FISHED_____

STATAREA SIGHTED (FROM OVERFLIGHT)_____

STATAREA	# HOOKS IN AREA	AVG DEPTH	# OF FISH	% OF FISH	APROX ACC?	EST PNDS	DR	ACTUAL POUNDS(FT)	DR

RECOVERD TAGS?_____

INCIDENTAL SPECIES_____

COMMENTS (ESP THOSE AFFECTING CPUE, WEATHER, TIDES ETC.)_____

OF FISH DISCARDED _____# OF FISH PERSONAL USE_____

DATA QUALITY_____ (1=EXCELLENT, 5=POOR) SAMPLER_____

INTERVIEW # _____

LONGLINE VESSEL INTERVIEW FORM

Vessel Name _____ Date __/__/__ mm/dd/yy

Name of Captain _____ ADF&G # _____

Port _____ Processor # _____

Target Species _____ Days Fished _____

LB Aboard (Y / N) LB Pages Collected (Y / N) LB Distributed (Y /N)

GEAR DESCRIPTION

Gear: LL Bait (Herring Squid Octopus) _____

Snap-on, Fixed _____ Hook Type (Circle, J, Tara, Mixed) _____

Hook Size _____ Hook Spacing (feet) _____

Fixed Gear

Hooks/Skate	_____
Skates/Set	_____
Total Skates/Trip	_____

Snap - On

Hooks/Set	_____
Total Sets/Trip	_____
Total Hooks/Trip	_____

CATCH & SAMPLING SUMMARY

Mgmt Area	Stat Area	% Effort in Area	Ave. Depth (fms)	Species	Number	Pounds	Dress Code	Number * Otoliths

Fish Sampled (No / Yes) Sampler Initials _____

Data Quality _____ (1-5: 1 = excellent, 5 = poor)

Comments:

* Sample #: _____

ALASKA TRAWL LOGBOOK

Vessel Name: ____________________

ADFG Number: ____________________

Port of Landing: ____________________

Date Left Port: __________

Date of Landing: __________

Date mo/day	Haul No.	Position			Time (24 hr)	Depth fm.	RPM	Gear No.	Trawl Type	Total Haul lb. or mt	Catch by Species lbs. or mt						Discard or Other	Comments
			LORAN 1 or ½° by 1°	LORAN 2														
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																
		Set																
		Up																

Further Comments:

B No 10203

ALASKA LONGLINE — POT FISHERY LOGBOOK

VESSEL NAME _____
VESSEL NUMBER _____
SKIPPER NAME _____

TARGET SPECIES _____
PORT OF LANDING _____
DATE LEFT PORT _____
DATE OF LANDING _____

CREW SIZE _____
(Include skipper)
SYSTEM USED _____
_____

LONGLINE GEAR			
HOOK SIZE/TYPE	SKATE LINE SIZE	HOOK SPACING	NUMBER OF HOOKS/SKATE
/			

POT GEAR		
POT DIMENSIONS (ft)	GROUNDLINE WT. OR DIAMETER	POT SPACING(ft)

BAIT(S) USED	%

SET OR BOUY NO.	DATE SET	TIME SET	DATE HAULED	TIME HAULED	POSITION COMPASS OR LORAN	AVERAGE DEPTH(fm)	NO. SKATES OR POTS RUN	CATCH BY SPECIES IN NUMBERS TARGET					COMMENTS

ADDITIONAL COMMENTS

№ 151379

APPENDIX B: Port sampling and biological sampling forms.

BIOLOGICAL DATA COLLECTION FORM

CRUISE_____ VESSEL_____ DATE_____

SPECIES_____ SET_____ LOCATION_____

AVG DEPTH_____FMS BEGIN LAT_____N X LONG_____W

GEAR_____ END LAT_____N X LONG_____W

SPECIMEN NO.	WT-KGS	LENGTH-MM	SEX	MAT	AGE	COMMENTS
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					
- -	.					

SAMPLER_____ RECORDER_____

PORT SAMPLES

PAGE ____ OF ____
INTERVIEW # _____
NON - BIASED Y/N
MONTH DAY YEAR

VESSEL ___________ AREA __________ ADF&G ________ DATE: _____ _____ _____

SPECIES	LENGTH		WEIGHT	SEX	MATURITY	SPECIES	LENGTH		WEIGHT	SEX	MATURITY
	FL	CA	KG LBS				FL	CA	KG LBS		

Tagging Agency_____ Recvd by (Capt/crew/proc)_____

Tag Number_____ Address_____

_____

ATTACH TAG HERE F/V_____ ADF&G_____

DO NOT FILL IN THIS AREA	
Cruise_____	Rec Nat____
Gear_____	Growth_____
Date_____	Days free__
Lat._____	Loc._____
Long._____	Mi. trav___
Depth_____	N or S
Length_____	Letter_____
Eligible____	Entered____

Date caught_____ Location_____

N.Lat._____ _____

W.Long._____ Statarea_____

Mgt Area_____ size____cm/_____in
round/east/westcut

Depth_____fm accurate or estimate?

Recovery gear: Longline__Pots__Other_____

Recovery information provided by
vessel___processor___ADF&G staff_____

Sampler's initials_____

RETURN TO:
GROUNDFISH BIOLOGIST, ADF&G
P.O. BOX 667, PETERSBURG AK 99833

SFT-90-1

****

Tagging Agency_____ Recvd by (Capt/crew/proc)_____

Tag Number_____ Address_____

_____

ATTACH TAG HERE F/V_____ ADF&G_____

DO NOT FILL IN THIS AREA	
Cruise_____	Rec Nat____
Gear_____	Growth_____
Date_____	Days free__
Lat._____	Loc._____
Long._____	Mi. trav___
Depth_____	N or S
Length_____	Letter_____
Eligible____	Entered____

Date caught_____ Location_____

N.Lat._____ _____

W.Long._____ Statarea_____

Mgt Area_____ size____cm/_____in
round/east/westcut

Depth_____fm accurate or estimate?

Recovery gear: Longline__Pots__Other_____

Recovery information provided by
vessel___processor___ADF&G staff_____

Sampler's initials_____

RETURN TO:
GROUNDFISH BIOLOGIST, ADF&G
P.O. BOX 667, PETERSBURG AK 99833